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TECH CENTER 1600/2900

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method for of searching for the identification of isolated physiologically active peptides, the method comprising the steps of:

comparing the cDNA sequences of receptor variants of receptors having one or more variants in size, the receptors being receptive of an identical ligand and being products of the same gene, wherein there is a substance or cell present in vivo that acts as an antagonist to the ligand for the receptor or to the cell which expresses the receptor of the ligand;

identifying which cDNA sequence in the larger receptor is missing in the shorter receptor; and

determining the corresponding peptide sequence from the cDNA sequence of the missing region, wherein said peptide sequence of the missing domain has physiological activity as a stand-alone peptide irrespective of its activity as part of a receptor;

synthesizing a peptide having at least 70% homology to said corresponding peptide sequence; and

testing said peptide for activity as an antagonist to the ligand for the receptor or to the cell which expresses the receptor of the ligand.

2. Cancelled.

3. Cancelled.

4. (Amended) A method of claim 1[2], wherein said peptide is synthesized by chemical synthesis.

18. Cancelled.

19. Cancelled.

20. Cancelled.

21. Cancelled.

22. Cancelled.

23. (New) The method of claim 1, wherein said peptide has at least 80% homology to said corresponding peptide sequence.

24. (New) The method of claim 1, wherein said peptide has at least 90% homology to said corresponding peptide sequence.

25. (New) The method of claim 1, wherein said peptide is comprised of the sequence of said corresponding peptide sequence.